

CDRA-4EU testing in support of ISS

NASA's Marshall Space Flight Center (MSFC) recently conducted tests on two desiccant beds of the four-bed molecular sieve carbon dioxide removal assembly (CDRA) returned from the International Space Station (ISS). MSFC had previously characterized the relationship between CDRA-4EU inlet conditions and the dewpoint at the desiccant bed exit and between the compressor and accumulator that make up the Carbon Dioxide Management Assembly (CDMA). MSFC installed the flight desiccant beds into the existing Exploration Test Chamber (E-chamber) using a suite of instrumentation not available on orbit to investigate the orbital performance of the desiccant beds. Test objectives, facility design and test results are presented.